



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,932	06/06/2000	Xin Qiu	D02308	8876
43471	7590	10/11/2006	EXAMINER	
GENERAL INSTRUMENT CORPORATION DBA THE CONNECTED HOME SOLUTIONS BUSINESS OF MOTOROLA, INC. 101 TOURNAMENT DRIVE HORSHAM, PA 19044			SON, LINH L D	
			ART UNIT	PAPER NUMBER
			2135	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,932

Applicant(s)

QIU ET AL.

Examiner

Linh LD Son

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9,14-18 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9,14-18 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responding to the Amendment received on 07/19/06.
2. Claims 1-4, 6-9, 14-18, and 23-26 are pending.

Response to Arguments

3. Applicant's arguments filed 07/19/06 have been fully considered but they are not persuasive.
4. As per remark on page 7 2nd paragraph, Applicant argues that Milsted does not teach using different encryption algorithms for different numbers of services being transmitted. Further Applicant alleged that Examiner admits such on page 5 of the Office Action. Examiner respectfully believes that the Applicant misinterpreted the point written in the Office Action. Examiner tries to point out that Milsted does not directly write out the language that would directly disclose "the second-level-of encryption is associated with a second number of services". Nevertheless, Milsted discloses a capabilities of encoding the content, such as music, video, and news, etc., (Col 4 lines 45-65, and Col 13 lines 20-30). The compression level selected and the algorithm selected is indexed in a database (See Abstract). As user requests a particular content, the compression and the algorithm used to encode the content is applied and send to the receiver. A different content is requested will result a different compression and

Art Unit: 2135

algorithm encoding. The user device such as PCs Set top boxes, and internet appliances is able to retrieve the requested content and decode accordingly. The News services would get a different compression, than music or video services. Therefore, Milsted does disclose of "the second-level-of encryption is associated with a second number of services".

5. As per remark on page 7 3rd Paragraph, Applicant argues that "the Examiner is using Applicant's own invention to provide the motivation to modify Milsted et al. and this is an improper source to cite to for motivation in an obviousness rejection."

Examiner respectfully rebuts Application's argument. The motivation to use different encryption algorithms for different data so as to allow for a reduction in processing power is also disclosed by Milsted in Col 5 lines 10-20. The processing power is measured in Processor resource and time complete, which is disclosed in Milsted. A certain processing power necessary for different level of algorithms is obvious in the art and clearly evidenced in Milsted's teaching. Therefore, rejection basis dated on 04/06/06 is maintained. See rejection below.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2135

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 23, and 25-26, are rejected under 35 U.S.C. 102(e) as being anticipated by Milsted.

8. As per claim 23:

Milsted discloses "A method of providing encrypted data, method comprising: providing a first set of services comprised of a first number of services; encrypting at least one of services from first set of services at a first level-of-encryption; combining the first set of services into a first data stream; transmitting said first data stream; storing a first set of decryption keys associated with said first-level-of-encryption, said first set of keys corresponding to the decryption algorithm for the first-level-of-encryption" in (See the Abstract, Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65); "providing a second set of services comprised of a second number services different from the first number of services; encrypting at least one of services from second set of services with an encryption algorithm different from first-level-of-encryption; combining the second set of services into a second data stream; transmitting said second data stream; storing a second set of decryption keys associated with second-level-of-encryption in integrated circuit in set-top box" in (See the Abstract, Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65).

9. As per claim 25:

Milsted discloses "The method of claim 24 wherein the first set of decryption data comprises at least one decryption key" in (Col 27 lines 42-65).

10. As per claim 26:

Milsted discloses "The method of claim 24 wherein the second set of decryption data comprises at least one decryption key" in (Col 27 lines 42-65).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-4, 6-9, and 14-18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milsted et al, US Patent No 6263313, hereinafter "Milsted". (Cited in US PTO 892 dated 08/11/05).

Art Unit: 2135

13. As per claims 1 and 24:

Milsted discloses "A method of providing data, the method comprising: storing a first set of encryption data associated with a first data stream wherein the first data stream includes a first number of services; encrypting the first data stream having a first-level-of-encryption; sending the first data stream to a destination device for decryption" in (Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65); "storing a second set of encryption data associated with a second data stream wherein the second data stream includes a second number of services that is different from the first number of services; encrypting the second data stream having a second-level-of-encryption, the first-level-of-encryption being different from the second-level-of-encryption; utilizing a common memory to encrypt said the first data stream at first-level of encryption and to encrypt the second data stream at the second-level-of encryption; and sending the second data stream to the destination device for decryption" in (Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65). However, Milsted is not explicitly disclosed the second -level-of-encryption is associated with a second number of services. Nevertheless, Milsted discloses a method of encrypting the data selectively from a group of encryption algorithm in (See Abstract, Col 15 lines 34-45, and Col 27 lines 42-65). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify the invention to encrypt a particular group of data using a

Art Unit: 2135

particular encryption algorithm with the motivation of simplifying the encryption method and could reduce the processing power if chosen a less sophisticate algorithm.

14. As per claim 2:

Milsted discloses "The method of claim 1 wherein the first set of encryption data comprises at least one encryption key" in (Col 27 lines 42-65).

15. As per claim 3:

Milsted discloses "The method of claim 1 wherein the destination device comprises a set-top box" in (Col 14 lines 15-40).

16. As per claim 4:

Milsted discloses "The method of claim 3 further comprising storing a plurality of decryption algorithms at the set-top box" in (Col 4 lines 35-45, and Col 10 lines 29-40).

17. As per claim 6:

Milsted discloses "The method in claim 1 wherein said first-level of encryption utilizes the Data Encryption Standard" in (Col 15 lines 34-45), said second-level-of encryption utilizes an encryption algorithm different from said Data Encryption Standard in (Col 15 lines 34-45).

18. As per claim 7:

Milsted discloses "The method of claim 1 further comprising: decrypting the first data stream at the set-top box; and decrypting the second data stream at the set-top box" in (Col 15 lines 34-45, and Col 27 lines 42-65).

19. As per claim 8:

Milsted discloses, "The method of claim 1 and further comprising storing a portion of the first set of encryption data in a RAM" in (Col 15 lines 45-55).

20. As per claim 9:

Milsted discloses "The method of claim 1 and further comprising storing a portion of the first set of encryption data in a register of a microprocessor" in (Col 15 lines 45-55).

21. As per claim 14:

Milsted discloses "A method of allocating resources comprising: allocating a memory with a first set of decryption data corresponding to a first level-of-encryption; receiving via from an originating source a first data stream having the first level-of-encryption and a first number of services" in Col 83 lines 45-55); "re-allocating the memory with a second set of decryption data corresponding to a second-level-of-encryption the

Art Unit: 2135

second-level-of-encryption the second-level-of-encryption being different from the first-level-of-encryption the second-level-of-encryption being different from the first-level-of-encryption of the first data stream; receiving from the originating source a second data stream having the second-level-of-encryption and a second number of services different from the first number of services; and storing in memory said first set of decryption data corresponding to a first level of encryption and second set of decryption data corresponding to said second level of encryption" in (Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, Col 27 lines 42-65, and Col 83 lines 45-55).

However, Milsted is not explicitly disclosed the second –level-of-encryption is associated with a second number of services.

Nevertheless, Milsted discloses a method of encrypting the data selectively from a group of encryption algorithm in (See Abstract, Col 15 lines 34-45, and Col 27 lines 42-65).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify the invention to encrypt a particular group of data using a particular encryption algorithm with the motivation of simplifying the encryption method and could reduce the processing power if chosen a less sophisticate algorithm.

Art Unit: 2135

22. As per claim 15:

Milsted discloses "The method of claim 14 and further comprising detecting that the second-level-of-encryption of the second data stream is different from the first-level-of-encryption of the first data stream" in (Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65).

23. As per claims 16 and 17:

Milsted discloses "the method as described in claim 14 wherein said allocating a memory with a first set of decryption data corresponding to said first-level-of-encryption comprises storing decryption key data; said memory with a second set of decryption data corresponding to said second-level-of encryption comprises storing decryption key data" in (Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65).

24. As per claim 18:

Milsted discloses "the method as described in claim 14 wherein said first data stream is comprised of a plurality of different services, each service encrypted at the same level of encryption" in (Col 2 lines 24-33, Col 11 lines 55-65, Col 14 lines 15-40, Col 15 lines 34-45, Col 18 lines 10-65, and Col 27 lines 42-65).

Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

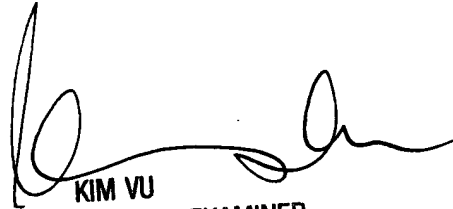
26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh LD Son whose telephone number is 571-272-3856. The examiner can normally be reached on 9-6 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh LD Son
Examiner
Art Unit 2135



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100